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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,202	06/27/2003	Seishi Ojima	018775-873	5807

7590

12/21/2004

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EXAMINER

GOODROW, JOHN L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,202

Applicant(s)

OJIMA ET AL.

Examiner

John L Goodrow

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al in view of JP 11-265120 and Emoto et al. Tomita et al teaches the toner having a volume-average particle size of 3-10 μm with a ratio from 1.05 to 1.25. The degree of roundness is taught as an important feature note Col.13 lines 1-10. Tomita fails to teach the Vickers hardness of the binder resin. JP 11-265120 teaches the Vickers hardness of more than 15.0HV0.01 or greater will increase the toner life and help prevent fogging note [0014]. Emoto et al teaches the toner particle with a spherical degree from 0.960 to 1.000 can be made by emulsion polymerization or the wet type process note claims 4-5. It would be obvious to one of ordinary skill in the art at the time of applicants' invention with a reasonable expectation of success to use the physical measurements such as Vickers hardness as a measurement of a toner with the known physical properties such as roundness and size in providing a toner with image improvement properties such as low fog.
3. Claims 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomita et al in view of JP 11-265120 as applied to claims 1-8 above, and further in view of Kukimoto et al. Applicants' claims are directed to a developing device and apparatus that use the toner of claim 1. The device and apparatus as taught in Kukimoto et al have

Art Unit: 1756

the same parts such as an image-supporting member, a charger (note contact charger), latent-image-forming device (exposure means) and developing device using a toner in the size range and shape factor as applicants' toner. The use of Vickers hardness is shown to be a useful measurement of the toner note JP 11-265120. It would be obvious to one of ordinary skill in the art at the time of applicants' invention with a reasonable expectation of success to use the measurements of physical properties of the toners in known developing devices and apparatus in improving the developed image obtained in an electro photographic process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L Goodrow whose telephone number is 571-272-1384. The examiner can normally be reached on Monday -Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark F Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L Goodrow

1756